Labor History

ISSN: 0023-656X (Print) 1469-9702 (Online) Journal homepage: https://www.tandfonline.com/loi/clah20

Unlocking from Community Stakeholders, Corporate Social Responsibility (CSR) projects for effective Company–Community relationship

Evans Asante Boadi, Zheng He, Dennis Fiifi Darko & Eugene Abrokwah

To cite this article: Evans Asante Boadi, Zheng He, Dennis Fiifi Darko & Eugene Abrokwah (2018) Unlocking from Community Stakeholders, Corporate Social Responsibility (CSR) projects for effective Company–Community relationship, Labor History, 59:6, 746-762, DOI: 10.1080/0023656X.2018.1470223

To link to this article: https://doi.org/10.1080/0023656X.2018.1470223

Published online: 22 May 2018.

LABOR HISTORY
2018, VOL. 59, NO. 6, 746–762
https://doi.org/10.1080/0023656X.2018.1470223

Routledge
Taylor & Francis Group

Unlocking from Community Stakeholders, Corporate Social Responsibility (CSR) projects for effective Company–Community relationship

Evans Asante Boadi[a,b], Zheng He[a,b], Dennis Fiifi Darko[a,b] and Eugene Abrokwah[c]

[a]The School of Management and Economics, University of Electronic Science and Technology of China, Chengdu, China; [b]The Center for West African Studies of University of Electronic Science and Technology of China, Chengdu, China; [c]The School of Business, University of Shanghai for Science and Technology, Shanghai, China

ABSTRACT

Conflicts in mining fields that revolve around the type and perceived impact of CSR projects seem to be daunting to solve. Such conflicts emerge from misconceptions among community stakeholders' that lead to a failed company–community relationship. This inimical situation threatens peace, security, lives, and properties at the community level. To resolve the company–community conflicts, it is important to minimize the misconception among community stakeholders' by identifying their preferences of CSR projects. However, the challenge of identifying these projects in mining fields is yet to be fully explored and understood. The aim of this paper is to identify community stakeholders' topmost preferences of CSR projects for an effective company–community relationship and propose a path for community engagement. A sample of 604 respondents comprising community leaders' and local residents' from three regions which host Gold Mining Firms with level 'A' membership from the Ghana Chamber of Mines were drawn for this study. Using a questionnaire made up of close and open ended questions, a survey was conducted. With SPSS 16.0, the data on the close ended questions were analyzed with ranking and factor analyses while the open ended were drawn into teams to support the former. The results of the ranking analysis show that different group of stakeholders' had a different preference for CSR projects. The factor analysis revealed that for effective company–community relationship both stakeholders' preferred a Streamline Social Intervention and Improve Stakeholder Economic related CSR projects. Base on these findings, the study recommends that Mining firms' should give maximum consideration to projects that seek the welfare of both stakeholders' and have equal engagement with all stakeholders'. Also, managing expectations before, during and after mining should be a shared responsibility of all the stakeholders'.

ARTICLE HISTORY
Received 11 September 2017
Accepted 9 December 2017

KEYWORDS
Corporate social responsibility; community leaders'; local residents'; Ghana

1. Introduction

On a regular basis, individuals and organizations exert pressure on mining firms to seek the interest of their stakeholders (Okoh, 2014). This is to impress on mining firms to be

CONTACT Zheng He hezh@uestc.edu.cn

responsible for the negative impact their operations have on the environment and socio-economic livelihood (Peck & Sinding, 2003). Seemingly, mining firms' have responded with CSR projects to show commitment to societal good but as to whether such actions are reactions to curtail societal behavior or a strategy to be responsible, requires further investigation (Hilson & Garforth, 2013; Porter & Kramer, 2011). In this research, CSR has been defined as the voluntary inclusion of social and environmental concerns and interaction with stakeholders' into company's strategy further than the minimum legal requirements (European Commission, 2006). This indicates that Mining firms' compliance with legal requirements such as acquiring permits to operate from regulatory bodies is insufficient to be termed as being socially responsible. Thus, mining firms should also earn the legitimate endorsement of their stakeholders' by embracing moral and ethical standards. Such commitment from Mining firms', strengthens the company–community relationship to minimize the abrupt end of mining projects (Thomson & Boutilier, 2011).

Indeed, suggestions from international organizations for an effective company–community relationship has been centered on stakeholder engagement before, all through and the close of mining projects (ICMM, 2012a; International Finance Cooperation, 2010). Inevitably, embarking on such proposals involves identifying the stakeholders' who are linked with mining activities either directly or indirectly. In the discourse of mining industry, the rural community has often emerged as a major stakeholder given that mining activities are mostly carried-out in rural areas (Davis & Franks, 2011; Prno & Scott Slocombe, 2012). Therefore, all things being equal, mining firms' performs CSR in collaboration with community stakeholders'. This is to help understand the needs of the community and communicate CSR projects that could be funded within the minimum resource constraints of Mining firms' (Cassimon, Engelen, & Liedekerke, 2016; Slack, 2009).

In Ghana, the rural community where mining activities exist are engaged either directly and or indirectly (Arthur, 2012). In the event where they are directly engaged, community durbars and general meetings are organized by Mining firms' for local residents' to take decisions on CSR projects. Whereas in the indirect case, community leaders' act as representatives of the local residents' to deliberate and take decisions on CSR projects. Of these two engagement methods, the indirect is mostly employed. For this reason, local residents often perceive decisions on CSR projects as those that seek the interest of their representatives. Also, it is believed that some of the community leaders' are on the payroll of Mining firms' (Twerefou, Aryeetey, & Osei, 2007). This poses the question as to whether the community leaders' can pursue the interest of local residents' with their supposed employer (Mining firms'). Moreover, there are complaints of community leaders' appropriating lands to mining firms' with poor communication to local residents' who depend on these lands for livelihood (Yeboah, 2008). Without properly engaging with local residents' on land situations, it only deepens their unhappiness with Mining firms' (Terminski, 2012). As these misunderstandings among community stakeholders' remain unresolved, its effects on Mining firms' is open resistance in the form of protests, demonstrations, and vandalism against their operations leading to loss of property and in some cases human life (Brew, Junwu, & Addae-Boateng, 2015). These conflicts are popular at the local level but they require a solution. This is because these conflicts could threaten national security as in the case of countries such as Liberia and Sierra Leone where conflicts were credited to mineral assets (Twerefou, 2009).

In their studies, Essah & Andrews (2016) and Zhang (2008) exposed a disparity between what mining firms pursue as CSR and what community stakeholders' perceive to be CSR. To

solve the disparity problem, Lawson and Bentil (2014) and Amponsah-Tawiah (2011) proposed that Mining firms' should have precise grievance processes and establish a reliable guideline of communication for community stakeholders'. Yet, solving the problem with the above recommendations remains a mirage as the company–community relationship continues to be unhealthy (Brew et al., 2015).

In this research, the authors take a different view to unlocking the company–community relationship conflicts. Thus, the authors opine that the problem can be resolved from community stakeholders' perspective. In that, community stakeholders should be asked to select their preferred CSR projects. This stakeholder-centered approach is one sure way to alleviate the problem since it does not only make community stakeholders' feel part of the decision-making process but also makes them owned the CSR projects. Therefore, the specific objectives of the study are to find out community stakeholders' preferences of CSR projects that lead to an effective company–community relationship. And to analyze as well as interpret the CSR projects that improve the company–community relationship.

2. Literature review

2.1. CSR and society

Integrative theories indicate that business managers consider social demands in that, business depends on society for existence and growth (Preston & Post, 1975). Social demands concern how society relates, offer legality and status to business (Garriga & Mele', 2004). Thus, the primary responsibility of the firm is to pursue regular scanning of the environment to identify issues that affect society and offer solutions. This will sustain the healthy relationship between firms' and society as the former is seen as a responsible entity. Therefore, business managers should implement CSR practices that center on societal values to build a harmonious relationship with all groups and individual stakeholders' who could affect their operations. Undeniably such actions by firms' addresses legitimate interest of stakeholders' to create value (Donaldson & Preston, 1995; Venkataraman, 2002). Indeed, the economic value of the firm is created by stakeholders' and a reliable stakeholder engagement promises better results (Freeman, Wicks, & Parmar, 2004).

The above is the foundation of this article that, to minimize the company–community conflicts, mining firms should tactfully handle the demands of community stakeholders'. This entails that firms should show concern and undertake CSR practices that consider the interest of their host local community.

2.2. CSR projects for effective company–community relationship

An examination of the current literature in the study context exposes two categories of CSR projects with a potential for effective company–community relationship namely: Social and Economic-related CSR.

2.2.1. Social related CSR

These are CSR projects that seek to promote social interventions within and beyond rural communities that play host to gold mining firms. For example, it has been revealed that the renovation and building of schools by Newmont Gold (GH) limited operating in Ahafo-Ano, attracted positive comments from community stakeholders' as the initiative increases access

to education (Owusu-Ansah, Adu-Gyamfi, Brenya, Sarpong, & Damtar, 2015). Similarly, Brew et al. (2015) identified educational sponsorship, books, and renovation of teachers' bungalows for rural communities in three regions of Ghana (Western, Eastern, and Ashanti) as CSR projects by gold mining firms. Also, Goldfields (GH) limited invested US$3 million from the proceeds of 963,000 oz of gold produced in 2011 through their Goldfields Ghana Foundation. The money was devoted to projects including school buildings and four-year community scholarship for Damang and Tarkwa communities (Antwi, 2010). Part of the fund was used in the construction of boreholes in rural communities that fall in the mining company's catchment. Additionally, evidence by (Issifu, 2016), illustrates that NewmontGold (GH) limited in the 1st quarter of 2013 distributed 1250 solar lamps at the cost of US$ 25,000 to school children at the Asutifi north district of the Brong Ahafo Region. Moreover, as reported by Amponsah-Tawiah and Dartey-Baah (2013), gold mining firms are involved in Small Town Water Supply project and the construction of community centers to preserve cultural heritage. With regards to health, Anaman (2008), mentioned that AngloGold (GH) Ashanti through medical screening and provision of medical equipment has been active in preventing malaria. Also, SANDVIC Ghana between 2009 and 2011 spent US$652,000 on the training of medical technicians, nurses at the University of Mines and the renovation of dormitory block for Midwifery Training School at Tarkwa (Ghana Extractive Industry Transparency Initiative [GHEITI], 2015). In the findings of Brew et al. (2015), gold mining firms supported local residents with National Health Insurance, building/renovation of clinics or health centers and accommodation for health personnel to the delight of rural communities in the Eastern, Western and Ashanti regions of Ghana.

The above are examples of social related CSR by Mining firms' but evidence abounds that these projects have not been able to curtail company–community conflicts (Myjoynews, 2017). Emphatically, all the above studies could not establish a healthy company–community relationship in light of these existing CSR projects. This gives a reason for the investigation into whether the CSR projects were implemented with the involvement of community stakeholders' or were undertaken beneath the whims of mining firms'. The authors believe that without the support of community stakeholders on CSR projects, the purpose of such projects is marred from its start.

2.2.2. Economic related CSR

Frynas (2005) and Ite (2005), posited that immediately a new mining operation starts, often rural communities view it as an opportunity to be provided with resources and infrastructure that will enhance their welfare. It is in this vein that the Chirano Gold Mine at Bibiani transmitted electricity to the Tarkwa-Benso community and renovated feeder roads at Akyempim community (GHEITI, 2015). According to Akabzaa, Sekyire & Afriyie (2007), community roads ease the movement of goods and services within and beyond the mining town of Obuasi and such projects encourage commercial activities. To empower local residents' in mining fields, Lawson and Bentil (2014) mentioned the Ahafo Linkages Program (ALP) which was set-up by Newmont Gold (GH) limited together with co-financier International Finance Corporation (IFC) in 2007 to increase income and employment opportunities for the local community. Also, Kapstein and Kim (2011) indicated that the ALP promoted the development of local suppliers who could provide needed goods and services thereby supporting the diversification of the Ahafo economy and fostering business associations that groom entrepreneurs. Again, Antwi (2010) on the operations of Goldfields (GH) Limited at Tarkwa stated

that gold mining increases employment for local people. Furthermore, gold mining firms at western region of Ghana offered training to local people in the areas of mobile phone repairs, the use of agricultural inputs, cultivation of cash crops and animal rearing (Brew et al., 2015).

It can be deduced that some economic related CSR projects are already in place within communities that host mining firms. But, the positive influence of these CSR projects in the livelihood of community stakeholders' is doubtful (All Ghana News, 2014). The authors believe that maximum consideration is not given to CSR projects that could sustain community stakeholders' in the long run. Thus, there is lack of alternative livelihood projects to take care of current and future needs of community stakeholders'. This makes it essential for mining firms' to obtain direct information from community stakeholders' to tilt CSR projects to the utmost economic issues that merit urgent consideration.

2.3. Community Stakeholders' and CSR

In the extractive industry, the local community has often emerged as a crucial stakeholder (Moffat & Zhang, 2014). For that matter, empirical studies have indicated why companies set out to establish contact with community leaders' who are acknowledged as mouthpiece and agents of developments. For example; Labonne and Chase (2009), uses data from 1200 households in 66 communities who participated in a Community–Driven Development project in the Philippines, to investigate local communities preferred projects for sponsorship. They found out that, most of the community leaders' preferences of projects were actually those that received funding. According to Ostrom (2000), community leaders' play a dominant role in the selection of CSR projects to be implemented in the rural community. This shows that firms' such as mining firms' which operates at the local level should consider community leaders' perspectives in projects.

In this study context and base on authors' experience in the sampled communities during data collection, generally, community leaders' are revered as overseers of lands. In fact, they are seen as bridges of resources and fulcrum of developmental projects in the rural community (ICMM, 2012b). Local residents' look-up to community leaders' to resolve social, political, and economic concerns in their area of jurisdiction. This is actually entrenched in the cultural settings of these local communities and has been handed over from the old generation to the new (Lawson & Bentil, 2014).

Despite the social respect accorded the community leaders', the role of local residents' in decision-making that affects their livelihood cannot be relegated. Critically, the discontent toward mining firms' mostly originates from local residents' (Myjoyonline news, 2017). Therefore, appropriate guidelines to engage them could avert unsocial behavior like vandalism and disturbances toward mining activities. The study of Rao and Ibáñez (2005) show that eventually most projects that community leaders' select receives funding but they do not address the needs of the local community. Again, the literature on Community-Driven Development operations of the World Bank suggests that community leaders' often distorts expected project outcome as their biases tend to over-shadow community preferences (Prno & Scott Slocombe, 2012). On this note, a direct engagement with a large number of local residents' in the community could serve their needs. In support of direct engagement, Olken (2007) presented that, the approach has a positive effect on expected benefits of projects.

From the above, both community leaders' and local residents' are stakeholders' who have an influence on projects at the grassroots level. Hence, engaging the viewpoints of these

stakeholders' in making decisions on CSR projects will help curtail suspicion among them and by extension canvass support for an effective company–community relationship.

2.4. The African community and CSR

Integrative theories suggest that a firm consider the sociocultural context in their relations with society. This means that the consent of all local stakeholders' is prerequisite and rules of engagement should be established on the norms that influence the attitude and behavior of all members (Donaldson & Dunfee,1994/1999/2000). We opine that this theoretical approach is relevant with the African view of the community.

Evidently, Ruzicka (2011) insisted that the African opinion of a person denies that an individual could have physical or psychological characteristic all by himself rather, a person is defined by the orientation from the immediate local community. Thus, the general good or the interest of the group is a top most concern. That individuals could only attain success if prosperity is found in the community within which the person acquires an identity.

Insightfully, mining firms' should aim at seeking the community interest rather than a section of it. This augments the call for a holistic approach in community stakeholder engagement to ensure that individuals and groups are duly represented and feel a sense of procedural fairness in arriving at what CSR projects get implemented (Moffat & Zhang, 2014). Cautiously, the above discussion is not to classify the African community as a homogeneous type. In fact, the different stakeholders' in the community presents different attitudes toward CSR projects on account of factors, including gender, age, income, education, number of children and type of job (Ivanova & Rolfe, 2011; Muradian, Martinez-Alier, & Correa, 2003). Nonetheless, the general good of the entire community subdues individual priority.

3. Research methodology

3.1. Research context

The study collected data from rural communities where large scale gold mining companies that hold commercial membership of level A with the Ghana Chamber of Mines (an association of all corporate miners in Ghana) operates. These companies functions in four out of the 10 regions of Ghana. Purposefully, local communities from three regions namely Western, Ashanti and Eastern were selected in that same gold mining firm functions at both third and fourth regions. These firms' are at the fore-front in the industry and are obliged to conduct business with credit to high ethical standards as reported by (Ghana Chamber of Mines, 2014).

3.2. Research instrument

CSR projects identified from the literature review (see Appendix 1) formed the main basis for the questionnaire survey. The questionnaire comprised of three sections: the 1st section was on the basic information of respondents and the 2nd section entailed 17 CSR projects for an effective company–community relationship. The 3rd section solicited for further views from respondents on their choice of CSR projects. Both section 1 and 2 of the questionnaire were made up of closed ended questions whiles section 3 was open ended. A 5-point Likert

scale was used in the questionnaire to quantify respondent's preference of CSR projects for an effective company–community relationship. The scale correspondingly represented respondents opinions from 1 (strongly disagree) that this CSR project can enhance company–community relationship to 5 (strongly agree) that the CSR project can contribute to managing the company–community relationship.

3.3. Data collection

While the rural communities were purposefully selected, data was gathered from local residents' and community leaders' who were available at the time of visit. For this study, the community leaders' are the Village Chiefs, Elected Assembly members, Unit Committee members and in some areas Tribe leaders. The authors were guided by suggestions from Brew et al. (2015); Sanders, Lewis, & Thornhil (2012) in data collection.

3.4. Data analysis and presentation

In analyzing data, the data on the close ended questions were analyzed with ranking and factor analyses while the open ended were drawn into teams to support the former. Significantly, using Statistical Package for the Social Sciences (SPSS) 16.0., statistical tests were used to confirm that the survey sample can be treated as a whole. First, the significance of identified 17 CSR projects was determined by ranking them based on their mean values and standard deviation (SD). If two CSR projects received the same mean value, the one with the lower standard deviation was regarded as more important. It should be noted that only CSR projects with mean values greater than 3.20 from both Community leaders' and Local residents' after the ranking were considered as critical for the effective company–community relationship. The Kendall's Coefficient of Concordance (KCC) of the sample data was also calculated to measure the agreement of respondents on their rankings of CSR projects. Mostly, KCC equal to 1 means that all respondents ranked the measures similarly, but a value of the KCC equal to 0 shows that all respondents ranked the measures distinctively (Yuan, Shen, & Wang, 2011). And then a statistical test including the Kaiser–Meyer–Olkin (KMO) and Bartlett's test of sphericity was carried out to confirm the possibility of a factor analysis to investigate relationship (if any) among the CSR projects identified. Factor analysis is capable of summarization and data reduction.

4. Presentation of data and discussions

Table 1 exposes the socio-demographics of the respondents'. A total number of 604 respondents took part in the study. This consisted of 194 community leaders' constituting 32.1% and 410 were local residents' representing 67.9%.

In terms of the main source of income, 33% of community leaders' and 42.7% of local residents' were into Farming, 27.3% of community leaders' and 22.7% of local residents' were involved in Trading, 14.9% of community leaders' and 13.2% of local residents' were into Services, 6.2% of community leaders' and 6.3% of local residents' were involved in Manufacturing, 18.6% of community leaders' and 15.1% of local residents' were into Mining.

From Carr (2002) and Manzo (2005), perception about a project in a community is influenced by residence history. Hence, the length of respondents' stay in the communities was

Table 1. Demography of respondents.

Description		Community leaders		Local residents	
		Frequency	Percentage %	Frequency	Percentage %
Number of respondents		194	32.1	410	67.9
Main source of income	Farming	64	33	175	42.7
	Trading	53	27.3	93	22.7
	Services	29	14.9	54	13.2
	Manufacturing	12	6.2	26	6.3
	Mining	36	18.6	62	15.1
Number of years stayed in community	0–4 years	26	13.4	58	14.1
	5–9 years	17	8.8	43	10.5
	10–14 years	77	39.7	179	43.7
	15–19 years	36	18.6	79	19.3
	Above 20 years	38	19.6	51	12.4

considered. An average proportion of 13.4% of community leaders and 14.1% of local residents were between 0 and 4 years, 8.8% of community leaders and 10.5% of local residents were between 5 and 9 years, 39.7% of community leaders and 43.7% of local residents were between 10 and 14 years, 18.6% of community leaders and 19.3% of local residents were between 15 and 19 years, 19.6% of community leaders and 12.4% of local residents were between 20 years and above. Thus, above average number of the respondents had lived for a long time and experience how life in the community was before mining began. They were in better position to express their views on the impact of industrial mining in the community which helps the objectives of this study.

4.1. Stakeholders' preferences of CSR projects

The relative importance of the identified CSR projects by ranking analysis is presented in Table 2. As shown in Table 2, 7 CSR projects are perceived as critical for the effective company–community relationship because each of them received a mean value greater than 3.20. Among the 7 CSR projects, C1 – Employment for local people is regarded as the most important by Community leaders' as it received a mean value of 3.91.

Meanwhile, C1 – Employment for local people was ranked by local residents as the 3rd most important with a mean value of 3.81. Also, C9 – Community Roads had a mean value of 3.85 from community leaders making it the second most effective for the company–community relationship, however, C9 – Community Roads received a mean value of 3.79 from Local residents ranking it as the 4th most effective for the company–community relationship. Additionally, C4 – School building attracted a mean value of 3.83 as the 3rd most effective for company–community relationship whereas C4 – School Building attained a mean value of 3.85 making it 2nd most effective for the company–community relationship from Local residents. Furthermore, C2 – Clinics/Health centers was ranked at 4th by community leaders with a mean value of 3.81 whiles the Local residents gave it the highest mean of 3.98 as the 1st most effective for the community–company relationship.

The results of the ranking analysis show that different group of stakeholders' had a different preference for CSR projects. This could be a source of mistrust among community stakeholders' which affect the company–community relationship. This is because all CSR projects may not be funded and implemented at the same time as firms' decisions are influenced by resource constraints (Cassimon et al., 2016). The results show fertile grounds for conflicts

Table 2. Ranking of Stakeholders' preferences of CSR projects.

	Community leaders'			Local residents'		
CSR projects	Mean	SD	Ranking	Mean	SD	Ranking
C1 – Employment for local people	3.91	1.201	1	3.83	1.213	3
C9 – Community Roads	3.85	1.123	2	3.79	1.242	4
C4 – School Building	3.83	1.302	3	3.85	1.315	2
C2 – Clinics/Health centers	3.81	1.343	4	3.98	1.120	1
C5 – Providing Electricity	3.75	1.117	5	3.70	1.151	5
C6 – Boreholes	3.69	1.234	6	3.69	1.288	6
C10 – Educational Scholarship	3.63	1.258	7	3.56	1.326	7
C8 – Teacher's Bungalow	3.12	1.662	8	3.10	1.640	8
C7 – Medical Screening	3.01	1.611	9	2.92	1.583	10
C11 – Nurses Quarters	2.82	1.408	10	2.80	1.343	11
C3 – Medical Equipment	2.82	1.537	11	2.97	1.525	9
C12 –Agro inputs/plantation	2.76	1.376	12	2.61	1.357	13
C13 – Community recreational centers	2.59	1.341	13	2.65	1.395	12
C15 – Educational books	2.40	1.264	14	2.59	1.271	14
C17 – Training for local people (mining related training)	2.34	1.484	15	2.40	1.418	16
C14 – Provision of National Health Insurance	2.28	1.199	16	2.46	1.289	15
C16 – Community Library	2.14	1.026	17	2.21	1.103	17

Note: Kendall's Coefficient of concordance (W): 0.165.

and firms should be circumspect in dealing with community stakeholders'. Hopefully, Kendall's Coefficient of Concordance of the 17 CSR projects was 0.165, which is statistically significant at the 1% level, meaning that both stakeholders' expressed similar interest about the importance of the CSR projects. Therefore, Mining firms could capitalize on this similar interest and carry out CSR projects that satisfy both stakeholders'. This is in line with the integrated theories that firms' could coexist peacefully with stakeholders' by addressing their interest.

Insightfully, there are empirical studies that highlight reasons for the different ranking of CSR projects. In terms of C1 – employment for local people, the difference in rankings seems to agree with Twerefou (2007), that mistrust exists on vacancy slots given to community leaders' by mining firms' to recruit local residents' as the former is perceived to consider family and friends. Also Lawson and Bentil (2014) exposed that with the excuse of high illiteracy rate, mining firms' promise of employment for community members at Asutifi district were not fulfilled. This is similar to a respondent expression that: …… *before the opening of mines they said we will be given jobs and now they say we did not go to school, didn't they know that before raising our hopes of getting jobs?* So, it is important for mining companies to streamline the recruitment process to be more transparent to earn trust and reduce the blame game on community leaders by local residents.

Considering the ranking of C2 – Clinic/health centers as the most significant by Local residents', Antwi (2010) and Vinorkor and Syme (2006) mentioned that mining related diseases include malaria, diarrhea, upper respiratory diseases, skin diseases, and mental disorders. This is the result of increased noise making from the blast, contamination of water bodies and pollution of air as well as land degradation (Akabzaa & Darimani, 2001). Hence,

for an effective company–community relationship, priority should be placed on availability, accessibility, and proximity to health care infrastructure.

Additionally, with C9 – Community Roads acquiring the 2nd highest mean from community leaders', confirms Akabzaa et al. (2007) assertion that good roads are crucial in mining fields to link villages and towns to ease movement of people as well as goods and services. Construction of community roads is complimentary roles played by gold mining firms to support the government (Garvin, McGee, Smoyer-Tomic, & Aubynn, 2009). As exposed by Lawson and Bentil (2014) gold mining firms in partnership with District Assemblies embark on road projects but community members are unaware of such collaboration. In lieu of the above, for an effective company–community relationship, mining firms' should improve community roads construction and communicate it to community stakeholders'.

Moreover, C4 – School Building with a mean value 3.85 from local residents' to place 2nd position could be interpreted as an intent to acquire and pursue education. Generally, people living in mining fields are perceived to be attracted to money and mining communities are embedded with increased school dropouts leading to increasing social vices such as prostitution and drug abuse (Amponsah-Tawiah, 2011). One of the respondents probably provided some reasonable justification to have school buildings: *…..as a laborer at the mines, I work so hard but I'm paid small money.....I wish my children go to school so they become better than me.* Therefore, mining firms are encouraged to continue the renovation of existing schools and build new ones to improve the company–community relationship.

Furthermore, it is surprising to see C12 – Agro inputs and plantation being ranked at 12th with mean value 2.76 by community leaders' and placed at 13th with mean value 2.61 by local residents'. This is because, at the main source of income as indicated above (see Table 1), farming recorded the highest percentage of 33% and 42.7% from both community leaders' and local residents' respectively. This is alternate sources of income for community members so they do not become dependent on the benefit of gold mining (ICMM 2006). But Lawson and Bentil (2014) indicated that mining companies have acquired concessions on vast lands from the government, hitherto these lands were used for farming and as a result, most community members in mining fields have shifted from commercial agriculture to subsistence. Accordingly, for Hilson and Banchirigah (2009) the approach toward the alternative source of income activities by mining firms' are not in touch with the mindsets and ambitions of rural community members. The above may account for C12 – Agro inputs and plantation not seen as effective for the company–community relationship.

Another astonishing result was the ranking of C17 – Training for local people at 15th with mean value 2.34 by community leaders' and at 16th with a mean value of 2.40 by local residents'. For ICMM (2006) the lack of necessary skills and education, often fail community members to benefit from jobs created in the extractive industries; in many cases, employees are brought in from outside of the communities hosting the mines. Nevertheless, this finding is by and largely consistent with an earlier study (Brew et al., 2015) where community members in the eastern region bemoaned that they have been involved in numerous training organized by gold mining firms intended for recruitment, yet are not called up for employment. Such delays in employment without precise reasons from mining firms' to community members may have caused C17 – Training for local people to be ranked beyond the critical CSR projects for an effective company–community relationship.

Table 3. KMO and Bartlett's test of the CSR projects.

Kaiser–Meyer–-Olkin measure of sampling adequacy		0.701
Bartlett's test of sphericity	Approx. χ^2	271.353
	df.	136
	Sig.	0.000

Table 4. Component matrix after varimax rotation.

	Components	
CSR projects	1	2
C10 – Educational scholarship	0.705	
C2 – Clinics/Health centers(including renovation of existing ones)	0.825	
C4 – School building(including renovation of existing ones)	0.775	
C6 – Boreholes(supply of water)	0.748	
C5 – Providing electricity		0.941
C1 – Employment for local residents(vocational and mining jobs)		0.579
C9 – Community roads		0.735
Eigenvalues	2.396	2.139
Percentage of variance explained	34.23	30.565
Cumulative percentage of variance explained	64.795	

Note: Extraction method: Principal Component Analysis.

4.2. Results of the factor analysis

Following the ranking analysis, data of the 7 CSR project were further analyzed through the SPSS 16.0 package. The analysis results presented in Table 3 shows that Bartlett's test of sphericity was 271.353 and the associated significance level is 0.000, showing that the population correlation matrix is not identity. The value of the Kaiser–Meyer–Olkin (KMO) was 0.701, which is greater than 0.5. This indicates that the sample is sufficient for the basic requirement of a factor analysis (Hair, Anderson, Tatham, & Black, 1995).

Subsequently, two components each with an eigenvalue greater than 1.0, from the varimax rotation of principal component analysis (see Table 4) was identified. Again, each CSR project belongs to only one of the components, with the loading value on each measure exceeding 0.500. Table 4 also shows that the two components account for 64.794% of the total variance explained. In particular, the first component contains four CSR projects, which are associated with social amenities (e.g. C6) and community aid (e.g. C2 and C4) for effective company–community relationship. Thus, it can be renamed "Streamline Social Intervention related CSR".

The second component has three CSR projects which concern livelihood (e.g. C1), which is related to stakeholders' welfare and infrastructure at the community level (e.g. C9), it can, therefore, be categorized as "Improve Stakeholders' Economic related CSR". These two components are further discussed as follows.

4.2.1. Component 1: streamline social intervention related CSR

This component comprises of four CSR projects namely: C10 – Educational Scholarship, C2 – Clinics/Health centers, C4 – School Building (including renovation of existing ones), C6– Boreholes (supply of water). The component attracted 34.3% of the total variance described among all the identified CSR projects (see Table 4). The above four CSR projects are closely related to human factors in ensuring effective company–community relations: specifically,

"streamline social intervention related CSR" concerns making available to community stakeholders' the basic necessities of life. The significance of a streamline social intervention related CSR is consistent with the findings of many studies. For example; on the advantages of CSR, Victor (2001) shared the enthusiasm of local communities in Philippians toward mining firms' for providing free of charge education for children from elementary to secondary school level. Although CSR projects may differ from country to country, Yakovleva, Brust & Mutti (2010) mentioned that, among community aid projects by mining companies in Argentina, community members' preferred hard infrastructure relating to education and health. Furthermore, the mining sector in Ghana has been criticized for over-reliance on the provision of social services such as schools, hospitals, water, and sanitation services (Minerals Commission, 2010). Perhaps, this is understandable as the study results show that community stakeholders' have interest in such projects. Therefore, in social related CSR, more consideration should be given to projects of this nature for an effective company–community relationship.

4.2.2. Component 2: improve stakeholders' economic related CSR

This component is concerned with how to promote the economic welfare of local community members. Specifically, it includes three critical CSR projects: C5 – Providing Electricity, C1 – Employment for local people (vocational and mining jobs) and C9 – Community Roads. The component is responsible for 30.565% of the total variance explained. The emphasis of this component is that community stakeholders' expect positive changes in their level of income. Authors such as Ag-besinyale (2003); Kuma (2007) argue that the mining industry has not increased development and social well-being nor has it reduced vulnerability of poor communities. This account for the high expectation from community stakeholders' that before the start of mines, roads are constructed to link villages to towns and cities and proper engagement on how employment issues will include local residents' and much more (Measham & Fleming, 2013). Hence, community stakeholders' economic related CSR should be a priority for an effective company–community relationship.

5. Conclusion, recommendation, and way forward

This paper presents the main findings from an empirical survey aimed at investigating community stakeholders' preferences of CSR projects that can improve the company–community relationship. Based on a thorough review of the literature, 17 CSR projects were identified. These CSR projects were used for a survey involving community leaders' and local residents' as major stakeholders' in mining fields. The preferences of CSR projects by these community stakeholders were different. However, from the statistical analysis, 7 CSR projects received the highest ranking from both stakeholders'. This means that both stakeholders' preferences could be met by giving attention to the 7 CSR projects to enhance the company–community relationship. With the use of factor analysis, the 7 CSR projects were placed into two components namely: Streamline social intervention related CSR (component 1) and Improve Stakeholders' Economic related CSR (component 2).

The results indicate that practical application of the integrative theories in business operations are invaluable. In that, the pursuit of stakeholder demands should be a priority of business managers to ensure smooth company–community relationships. Moreover, the findings of this study concur with Boon and Ababio (2009) that CSR projects in the mining

industry of Ghana are inclined to Education, Health and Livelihood projects. This is consistent with an elsewhere study by Mzembe and Meaton (2014) that Malawians expect companies to provide basic social services such as schools, health services, and infrastructure as government regularly shirk responsibility. Agreeably, Visser (2008) mentioned that weaknesses in societal governance in many developing countries like Ghana has compelled citizens to regard private businesses as alternative providers of basic social rights.

Nonetheless, insight from the paper can be useful for mining firms, community stakeholders' and policy makers. Specifically, mining firms should give maximum consideration to the 7 CSR projects that were most preferred by both community stakeholders'. Also, mining firms should have equal engagement with both community stakeholders' to know their reactions before and after taking decisions on CSR projects. Where resource constraints will affect community stakeholders' preferred CSR project(s), mining firms' could rely on grievance procedures as recommended by other studies.

With regards to community stakeholders', whenever they are engaged by mining firms', they should consider CSR projects that benefit the majority of community members. For example; roads, water, electricity, health facilities impact positively on many lives rather than technical training on mining jobs that could be controlled by family and friends.

For government and other policy-makers, they should assist in managing the expectations of community stakeholders'. This is important as the analyses of this study shows that expectations equally contributed to the conflicts. Indeed, the advent of mining operations in a local community is not a panacea for all developmental problems.

Further studies are recommended for rural communities which host mining companies that are not under level A-membership of the Ghana Chamber of Mines. Also, as to what motivates mining firms' to implement CSR projects for rural communities requires investigation. Additionally, the demographic impact of community stakeholders' on their preferences of CSR projects could be examined. Moreover, the effectiveness of regular interactions with community stakeholders' in enhancing company–community relationship may need further research.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Evans Asante Boadi is a PhD scholar with specialty in Strategic Management at the School of Management and Economics, University of Science and Technology of China (UESTC). For over 7 years, he has been involved in local community outreach programs under the sponsorship of agencies such as the International Finance Cooperation, Danida, African Health Markets for Equity and Marie Stopes International (GH). His research interest involves Labor relations and organizational development.

Zheng He received her PhD degree from UESTC in 2007 and M.S. degree in 1998. She joined the School of Management and Economics of UESTC in 1998. She has published more than 40 papers and written two academic books. She is currently an academic supervisor for PhD scholars.

Dennis Fiifi Darko is a PhD scholar and a student leader at the UESTC. He has about four years working experience as a banker and has research interest in Marketing, Education administration and Sports.

Eugene Abrokwah is a PhD scholar in Management Science and a researcher at the School of Business, University of Shanghai for Science and Technology. His research interest includes Labor Economics, Strategic Human Resource Management, and Business ethics.

References

Ag-besinyale, P. K. (2003). Ghana's gold rush and regional development: The case of Wassa West District. *Spring Research Series, 44*, 143–164.

Akabzaa, T. M., & Darimani, A. (2001). Impact of mining sector investment in Ghana: A study of the tarkwa mining region (Draft Report for SAPRI), Accra.

Akabzaa, T. M., Seyire, J. S., & Afriyie, K. (2007). *The glittering façade: Effects of mining activities on Obuasi and its surrounding communities*. Accra-North: Third World Network Africa (TWN-Africa).

All Ghana News. (2014, June 3). Four mining companies provide police with checkpoints. Retrieved from http://www.allghananews.com

Amponsah-Tawiah, K., & Dartey-Baah, K. (2013). Corporate social responsibility in Ghana. *International Journal of Business and Social Science, 2*(17), 107–112.

Amponsah-Tawiah, K. (2011). The mining industry in Ghana: A blessing or a curse. *International Journal of Business and Social Science, 2*(12), 62–70.

Anaman, J. K. (2008). The evolution of the Ghana Chamber of Mines, 80 years of mining in Ghana, 1928-2008.

Antwi, F. (2010). An Assessment of the Impacts of Newmont Gold Ghana Limited (NGGL) On The Socio-Economic Development after Six Years of Operation in the Birim North District. An Unpublished Master of Arts Thesis submitted to the Department Of Geography and Rural Development, Kwame Nkrumah University of Science and Technology.

Arthur, P. (2012). Averting the resource curse in Ghana: Assessing the options. In Larry Swatuk & Matthew Schnurr (Eds.), *Natural resources and social conflict: Towards critical environmental security* (pp. 108–127). London: Palgrave Macmillan.

Boon, E. K., & Ababio, F. (2009, May 16–22). Corporate social responsibility in Ghana: Lessons from the Mining Sector. Impact assessment and human well-being, 29th annual conference of the international association for impact assessment, Accra International Conference Centre, Accra, Ghana.

Brew, Y., Junwu, C., & Addae-Boateng, S. (2015). Corporate social responsibility activities of mining companies: The views of the local communities in Ghana. *American Journal of Industrial and Business Management, 5*(06), 457.

Carr, A. (2002). *Grassroots and the green tape: Principles and practices of environmental stewardship*. Leichardt: The Federation Press.

Cassimon, D., Engelen, P. J., & Liedekerke, L. V. (2016). When do firms invest in corporate social responsibility? A real options framework. *Journal of Business Ethics, 137*(1), 15–29. doi: 10.1007/s10551-015-2539-y

Davis, R., & Franks, D. M. (2011). The costs of conflict with local communities in the extractive industry, In Proceedings of the First International Seminar on Social Responsibility in Mining, Santiago, Chile,19–21 October; pp. 1–13.

Donaldson, T., & Dunfee, T. W. (1994). Towards a unified conception of business ethics: Integrative social contracts theory. *Academy of Management Review, 19*, 252–284.

Donaldson, T., & Dunfee, T. W. (1999). *Ties that bind: A social contracts approach to business ethics*. Boston, MA: Harvard Business School Press.

Donaldson, T., & Dunfee, T. W. (2000). Précis for ties that bind. *Business and Society Review, 105*(4), 436–443.

Donaldson, T., & Preston, L. (1995). The stakeholder theory of the corporation – Concepts, evidence, and implications. *Academy of Management Review, 20*(1), 65–91.

Essah, M., & Andrews, N. (2016). Linking or de-linking sustainable mining practices and corporate social responsibility? Insights from Ghana Resources Policy. Elsevier: 75–85, doi:10.1016/j.resourpol.2016.08.008

European Commission. (2006). Implementing the partnership for growth and jobs: Making Europe a pole of excellence on CSR.COM (2006)136 Final.
Freeman, R. E., Wicks, A. C., & Parmar, B. (2004). Stakeholder Theory and 'The Corporate Objective Revisited'. *Organization Science, 15*(3), 364–369. doi:10.1287/orsc.1040.0066
Frynas, J. G. (2005). The false developmental promise of Corporate Social Responsibility: Evidence from multinational oil companies. *International Affairs, 81*(3), 581–598.
Garriga, E. & Melé, D. (2004). Corporate social responsibility theories: Mapping the territory. *Journal of Business Ethics, 53*, 51. doi:10.1023/B:BUSI.0000039399.90587.34
Garvin, T., McGee, T. K., Smoyer-Tomic, K. E., & Aubynn, E. A. (2009). Community–company relations in gold mining in Ghana. *Journal of Environmental Management, 90*(1), 571–586.
Ghana Chamber of Mines. (2014). Report on the Performance of the Mining Industry, 1–21. Retrieved from http://ghanachamberofmines.org/en/our-publications.php
Ghana Extractive Industry Initiative. (2015). Corporate social responsibility (CSR) in Mining. Retrieved from http://www.gheiti.gov.gh/site/index.php?option=com_content&view=article&id=201:corporate-social-responsibility-csr-inmining&catid=1:latest-news&Itemid=29.
Hair, J. F., Anderson, R. W., Tatham, R. L., & Black, W. C. (1995). Multivariate data analysis (4th ed.), Englewood Cliffs, NJ: Prentice Hall College.
Hilson, G., & Garforth, C. (2013). 'Everyone now is concentrating on the mining': Drivers and implications of rural economic transition in the eastern region of Ghana. *Journal of Development Studies, 49*(3), 348–364. doi:10.1080/00220388.2012.713469
Hilson, G., & Banchirigah, S. M. (2009). Are alternative livelihood projects alleviating poverty in mining communities? Experiences from Ghana *The Journal of Development Studies, 45*(2), 172–196. doi:10.1080/00220380802553057
International Council of Minerals and Metals. (2006). *Mining and Human Rights: How the UN SRSGcan Help Spread Good Practice and Tackle Critical Issues*. London: ICMM.
International Council on Mining and Metals. (2012a). *The Challenge of Mineral Wealth: Using resource endowments to foster sustainable development. Analytical Framework*. London: ICMM.
International Council on Mining and Metals. (2012b). Community development toolkit. London: ICMM.
International Finance Cooperation. (2010). *Strategic Community Investment: A Good Practice Handbook for Companies Doing Business in Emerging Markets*. Washington, DC: IFC.
Issifu, A. K. (2016). Corporate responsibility in peace building, conflict prevention and development: The role of the mining sector in Ghana. *Journal of Interdisciplinary Conflict Science, 2*(2). Retrieved from http://nsuworks.nova.edu/jics/vol2/iss2/2
Ite, U. E. (2005). Poverty reduction in resource-rich developing countries: What have multinational corporations got to do with it? *Journal of International Development, 17*, 913–929.
Ivanova, G., & Rolfe, J. (2011). Assessing development options in mining communities using stated preference techniques. *Resources Policy, 36*, 255–264.
Kuma, J. S. (2007). Hydrogeological studies on the Tarkwa gold mining district, Ghana, Bulletin of Engineering Geology and the Environment.
Kapstein, E., & Kim, R. (2011). *The socioeconomic impact of Newmont Ghana Gold Limited*. Greenwood Village, CO: Newmont Ghana Gold Limited.
Labonne, J., & Chase, R. S. (2009). Who is at the wheel when communities drive development? Evidence from the Philippines. *World Development,* 37(1): 219–31. doi:10.1016/j.worlddev.2008.05.006
Lawson, E. T., & Bentil, G. (2014). Shifting sands: Changes in community perceptions of mining in Ghana. *Environment, Development and Sustainability, 16*(1), 217–238. doi:10.1007/s10668-013-9472-y
Manzo, L. C. (2005). For better or worse: Exploring multiple dimensions of place meaning. *Journal of Environmental Psychology, 25*, 67–86.
Measham, T., & Fleming, D. (2013). *Lessons from developments of resource extraction industries in rural areas: A literature review report to the gas industry social and environmental research alliance (GISERA)*. Canberra: CSIRO.
Minerals Commission. (2010, September 13-14). Validation workshop on developing social responsibility guidelines for mining companies in mining communities, organized by the Minerals Commission of Ghana, Oak Plaza Hotel, Accra.

Moffat, K., & Zhang, A. (2014). The paths to social licence to operate: An integrative model explaining community acceptance of mining. *Resources Policy, 39*, 61–70.
Muradian, R., Martinez-Alier, J., & Correa, H. (2003). International Capital versus Local Population: The Environmental Conflict of the Tambogrande Mining Project, Peru. *Society & Natural Resources, 16*(9), 775–792.
Myjoyonline news. (2017, May 27). Irate youth loot, vandalize mining company. Retrieved from http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Irate-youth-loot-vandalise-mining-company-541758
Mzembe, A. N., & Meaton, J. (2014). Driving corporate social responsibility in the Malawian mining industry: A stakeholder perspective. *Corporate Social Responsibility and Environmental Management, 21*(4), 189–201.
Olken, B. (2007). Political institutions, and local public goods: Evidence from a field experiment in Indonesia. Mimeo Harvard University.
Okoh, G. A. (2014). Grievance and conflict in Ghana's gold mining industry: The case of Obuasi. *Futures, 62*, 51–57. doi:10.1016/j.futures.2013.09.007
Ostrom, E. (2000). Collective action and the evolution of social norms. *Journal of Economic Perspectives, 14*(3), 137–158.
Owusu-Ansah, D., Adu-Gyamfi, S., Brenya, E., Sarpong, Y. A., & Damtar, D. (2015). Corporate social responsibility of mining companies in Ghana: The case of Newmont Ghana Gold Limited at Ahafo. *Social, and Development, 6*(4), 52–70.
Peck, P., & Sinding, K. (2003). Environmental and social disclosure and data richness in the mining industry. *Business Strategy and the Environment, 12*, 131–146.
Porter, M. E., & Kramer, R. (2011). Creating shared value. *Harvard Business Review, 89*, 62–77.
Preston, L. E., & Post, J. E. (1975). Private management and public policy, the principle of public responsibility. Englewood Cliffs, NJ: Prentice Hall.
Prno, J., & Scott Slocombe, D. (2012). Exploring the origins of 'social license to operate' in the mining sector: Perspectives from governance and sustainability theories. *Resources Policy, 37*(3), Elsevier: 346–357. doi:10.1016/j.resourpol.2012.04.002
Rao, V., & Ibáñez, A. M. (2005). The social impact of social funds in Jamaica: A 'participatory econometric' analysis of targeting, collective action, and participation in community-driven development. *Journal of Development Studies, 41*(5), 788–838.
Ruzicka, T. (2011). A traditional African concept of community of community related to ethical intuitionism. *Macalester Journal of Philosophy, 5*(1).
Saunders, M. N. K., Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th ed.). (p. 728). New Jersey, NJ: Financial Times/Prentice Hall.
Slack, K. (2009). *Mining conflicts in Peru: Condition critical*. Boston, MA: Oxfam America.
Terminski, B. (2012). Mining-induced displacement and resettlement: Social problem and human rights issue, Genf 2012. Retrieved from http://nbn-resolving.de/urn:nbn:de:0168-ssoar-327774
Thomson, I., & Boutilier, R. G. (2011). The social license to operate. In Darling, P. (Ed.), SME mining engineering handbook. Society for mining, metallurgy, and exploration, Colorado (pp. 673–690).
Twerefou D. K. (2009). A Study on Mineral Exploitation, Environmental Sustainability and Sustainable Development in EAC, SADC and ECOWAS Regions, African Trade Policy Center Work in Progress No. 79. Addis Ababa, Ethiopia.
Twerefou D. K., Aryeetey E., & Osei B. (2007). Impact of mining sector reforms on output, employment and Incomes, 1992-2002 ISSER Technical Publication No. 75, ISSER, University of Ghana, Legon.
Venkataraman, S. (2002). Stakeholder value equilibration and the entrepreneurial process. In R. E. Freeman, S. Venkataraman, Eds., The Ruffin Series No. 3: Ethics and Entrepreneurship, Philosophy Documentation Center, Charlottesville, VA, 45–57.
Victor, F. (2001). Building community partnership: The processes involved and the advantages of starting early at the mining Philippines. Conference held in Manila on November 21-22.
Vinorkor, A., & Syme, S. (2006, December 8). Mining companies brutalized us. daily graphic, Ghana, 48.
Visser, W. (2008). Corporate social responsibility in developing countries. In A. Crane, A. McWilliams, D. Matten, J. Moon, & D. Siegel (Eds.), *The Oxford handbook of corporate social responsibility* (pp. 473–503). Oxford: Oxford University Press.

Yakovleva, N., Brust, D. V., & Mutti, D. (2010). Corporate social responsibility of mining companies in Argentina. *Climate Change and Green Growth: Innovating for Sustainability, 55*(1991), 1–12.
Yeboah, J. Y. (2008). Environmental and health impact of mining on surrounding communities: A case study of AngloGold Ashanti in Obuasi, An unpublished Master of Arts thesis, Department of Geography and Rural Development, Kwame Nkrumah University of Science and Technology.
Yuan, H. P., Shen, L. Y., & Wang, J. Y. (2011). Major obstacles to improving the performance of waste management in China's construction industry. *Facilities, 29*(5/6), 224–242.
Zhang, F. (2008). Corporate social responsibility in emerging markets: The role of multinational corporations, the foreign policy centre.

Appendix 1. Identified CSR practices for effective company–community relationship.

Source	C1	C2	C3	C4	C5	C6	C7	C8	<C9	C10	C11	C12	C13	C14	C15	C16	C17
Lawson and Bentil (2014)	√																√
Amponsah-Tawiah and Dartey-Baah (2013)						√						√					
Owusu-Ansah et al. (2015)			√						√		√						
Brew et al. (2015)	√	√		√			√	√		√		√	√	√	√	√	√
Antwi (2010)				√		√				√							
Kapstein and Kim (2011)	√											√					√
Issifu (2016)					√	√											
GHEITI, (2015)					√				√	√	√						√
Anaman (2008)			√				√										

Notes: C1 – Employment for local people, C2 – Clinics/Health centers, C3 – Medical equipment, C4 – School building, C5 – Electricity, C6 – Boreholes, C7 – Medical screening, C8 – Teachers bungalow, C9 – Community roads, C10 – Educational scholarship, C11 – Nurses quarters, C12 – Agro inputs/chemicals and plantation, C13 – Community recreational centers, C14 – Providing of National Health Insurance, C15 – Educational supplies, C16 – Community library, C17 – Vocational training.